



Patients Support a Pharmacist-led Best Possible Medication Discharge Plan (BPMDP) in a Remote and Rural Community Hospital

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Background

- Medication reconciliation (MedRec) reduces the risk of medication-related adverse events; pharmacists have demonstrated they are invaluable in the MedRec process
- A best possible medication discharge plan (BPMDP) is a patient's revised medication list (from the admission medication list- BPMH) when a patient is discharged from hospital
- Hospital stays > 72 h for patients with chronic disease increases the probability of their home medications changing when discharged
- Polypharmacy remains the primary cause of adverse drug events
- In many remote and rural communities, access to a pharmacist may be non-existent and MedRec is not being done
- Studies on the extension of a visual presence via a mobile robotic platform with real-time audiovisual communication by pharmacists to communicate with patients in hospital are lacking

Study

Design: Prospective cohort pilot study

Primary Objective: To explore how patients in a remote and rural community hospital, who are at high risk for preventable adverse drug events, perceive a pharmacist-led real-time BPMDP utilizing telerobot technology

Secondary Objectives:

- To determine BPMDP time requirements –preparation, patient interview and unintentional medication discrepancy resolution
- To describe unintentional discharge medication discrepancies (class, type, cause, intervention)
- To describe facilitators, inefficiencies and barriers in completing interviews

Methodology:

- Eligible patients were provided a letter of information describing the BPMDP interview by the nurse upon hospital admission

Pharmacists:

- Created a BPMDP and documented unintended discharge medication list discrepancies by class, type, cause and pharmacist intervention
- Conducted an interview with the patient via telerobot:
 - provided patient counselling and health literature
 - encouraged patients and caregivers to ask questions

Patients:

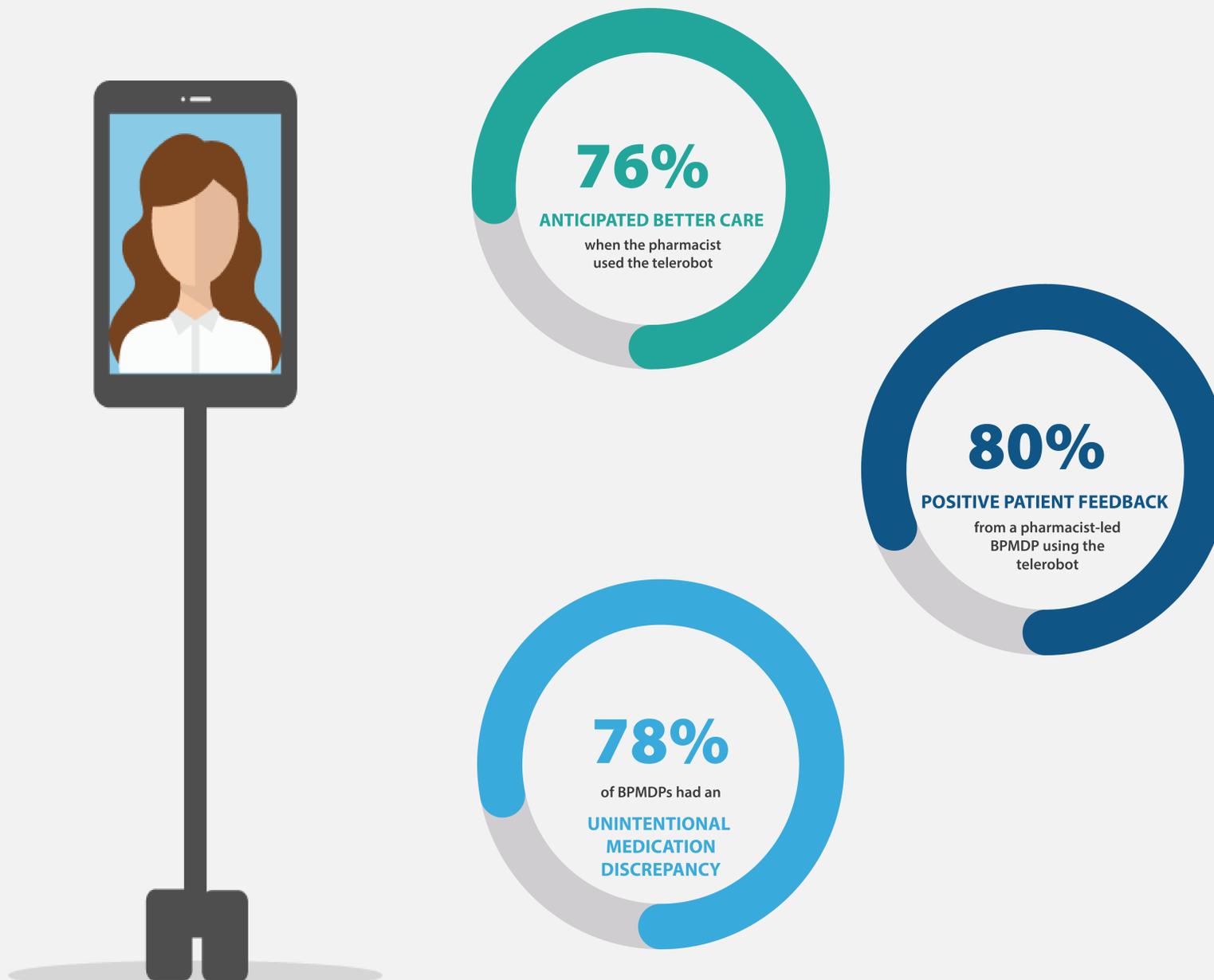
- Following the interview, completed an anonymous satisfaction survey via kiosk on a computer tablet or paper copy

Study Population

- Age > 18 **AND**
- Admitted to the hospital for >72 h **AND**
- High risk for ADE, with one of:
 - > 5 medications for chronic conditions **OR**
 - On a high risk medication(s) **OR**
 - Principle diagnosis, at least one:
 - Cancer
 - COPD
 - Stroke
 - Heart failure
 - Diabetes
 - Depression, **OR**
- Prior unplanned hospitalization within the last six months

Disclosure Summary

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Results

Table 1: Demographic characteristics of participants (n=9)

Characteristics	Value	
Gender	Males, %	55
	Females, %	45
Age	Median (IQR)*, years	76 (73-80)
	Cardiovascular, %	44
Primary reason for hospitalization	Respiratory, %	22
	Musculoskeletal, %	11
	Gastrointestinal, %	11
	Other, %	11
Number of medications	Median (IQR)*	11 (9-13)
Rate of eligible patient participation, %		37.5

*Interquartile range

Table 2: Survey responses (n=8)

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel my care is going to be better because the Hospital Pharmacist uses the robot to see me.	13%	63%	13%	13%	0%
I feel comfortable with the Hospital Pharmacist visiting me using the robot.	13%	88%	0%	0%	0%
I feel that the Hospital Pharmacist cared less about me by visiting me with the robot instead of in person.	13%	0%	0%	63%	25%
Communication with the Hospital Pharmacist using the robot is easy.	25%	63%	0%	0%	13%
I support the Hospital's use of "the robot" for the Pharmacist to teach about medications.	25%	50%	25%	0%	0%
The robot makes it more difficult for me to communicate the way I would like to.	13%	0%	0%	63%	25%
When the Hospital Pharmacist is not in the hospital, I prefer to communicate using the phone instead of the robot.	0%	13%	50%	25%	13%
I feel that the robot is annoying.	0%	0%	13%	63%	25%
The use of the robot for Hospital Pharmacists to interview patients should be a regular practice.	25%	25%	38%	13%	0%
I am concerned the Hospital Pharmacist cannot properly discuss my medications using the robot	13%	0%	13%	75%	0%
TOTAL	80% POSITIVE				

Figure 1: Unintentional Discharge Medication List Discrepancies (n=7, rate= 0.78)

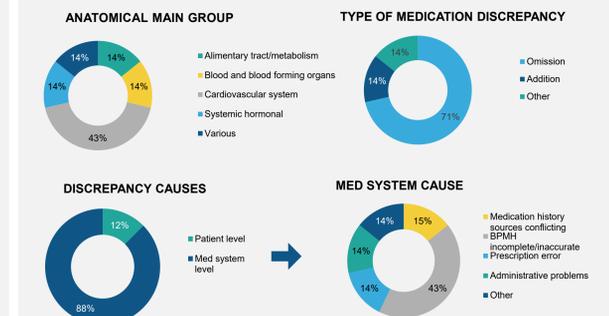


Figure 2: Pharmacist Interventions (rate = 0.67)

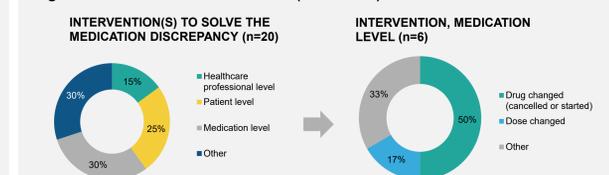


Table 3: Interview time requirements

	Preparation time	Interview time	Resolution time	Total time
Median, min	45	15	10	50
IQR*	40-45	10-20	0-12.5	25-64

*Interquartile range

Conclusions

- Pharmacists conducting BPMDP interviews via telerobot in a small, rural community hospital is feasible and well accepted by patients
- Most high risk patients have a medication discrepancy upon hospital discharge:
 - Often a medication for the management of CV disease
 - Usually by omission, & due to an inaccurate BPMH on admission
 - Pharmacists resolved discrepancies with patients & providers
- Program barriers, and inefficiencies were identified to increase recruitment and timeliness of BPMDP patient interviews.

